

## CLAIMS

1. A liquid crystal display device comprising:  
a polarizing plate;  
a pair of substrates at least one of which is  
5 transparent;  
a pair of electrodes; and  
a nematic liquid crystal;  
said nematic liquid crystal:  
being filled between the pair of substrates;  
10 being aligned to be substantially perpendicular  
to the substrates when applying a voltage not higher  
than a threshold value between the electrodes;  
having negative dielectric constant anisotropy;  
and  
15 undergoing change in tilt angle of alignment with  
respect to the substrates in accordance with applied  
voltage when applying a voltage not lower than a  
threshold value between the electrodes;  
said liquid crystal display device:  
20 having a voltage range in which a rate of change  
in retardation level with respect to temperature  
becomes substantially zero; and  
displaying red or purple when voltage is applied  
at a maximum voltage value in the voltage range.  
25 2. The liquid crystal display device according  
to claim 1, wherein when voltage is applied at a  
maximum voltage value in the voltage range, a color

displayed is present in the region that satisfies two expressions,  $x > 0.4$  and  $y < 0.45$ , in the xy chromaticity coordinates.

3. The liquid crystal display device according to claim 1, which displays blue at a voltage value beyond the voltage range.

4. The liquid crystal display device according to claim 1, which displays green by using a color filter.

5. The liquid crystal display device according to any one of claims 1 to 4, which displays black when no voltage is applied.

6. A method for driving a liquid crystal display device comprising:

a polarizing plate;

a pair of substrates at least one of which is transparent;

a pair of electrodes; and

a nematic liquid crystal;

said nematic liquid crystal:

being filled between the pair of substrates;

being aligned to be substantially perpendicular to the substrates when a voltage not higher than a threshold value is applied across the electrodes;

having negative dielectric constant anisotropy;

and

undergoing change in tilt angle of alignment with

respect to the substrates in accordance with applied voltage when applying a voltage not lower than a threshold value between the electrodes;

the device further comprising a first pixel  
5 having a voltage range in which a rate of change in retardation level with respect to temperature becomes substantially zero, and a second pixel provided with a green color filter;

the method comprising the steps of:

10 applying voltage at a maximum voltage value in the voltage range when red or purple is displayed;

applying a voltage higher than the maximum voltage value in the voltage range when blue is displayed; and

15 applying voltage to the pixel with a green color filter when green is displayed.